Phase II and Phase III Archeological Database and Inventory

MARYLAND HISTORICAL TRUST

Site Number: 18ST625 **Site Name:** AWOIS #7241 Prehistoric ☐

Other name(s) Steamship Columbus Historic ☑

Brief Description: shipwreck, mid-19th century side-wheel steamer Unknown ☐

Site Location and Environmental Data:

Latitude 37.9702 Longitude -76.1947

Elevation 0 m Site slope 0

Site setting

-Site Setting restricted

-Lat/Long accurate to within 1 sq. mile, user may need to make slight adjustments in mapping to account for sites near state/county lines or streams

Maryland Archeological Research Unit No. 10

Physiographic province Western Shore Coastal

Ethnobotany profile available ☐ Maritime site ☑

SCS soil & sediment code

Terrestrial site ☐ Underwater site ☑

Topography

Floodplain	☐	High terrace	☐
Hilltop/bluff	☐	Rockshelter/ cave	☐
Interior flat	☐	Hillslope	☐
Upland flat	☐	Unknown	☐
Ridgetop	☐	Other	☑
Terrace	☐	Bay floor	
Low terrace	☐		

Ownership

Private	☐
Federal	☐
State of MD	☑
Regional/ county/city	☐
Unknown	☐

Nearest Surface Water

Name (if any) Chesapeake Bay

Saltwater		Freshwater	
Ocean	☐	Stream/river	☐
Estuary/tidal river	☑	Swamp	☐
Tidewater/marsh	☐	Lake or pond	☐
		Spring	☐

Minimum distance to water is 0 m

Temporal & Ethnic Contextual Data:

Paleoindian site		Woodland site		Contact period site		ca. 1820 - 1860	Y
Archaic site		MD Adena		ca. 1630 - 1675		ca. 1860 - 1900	
Early archaic		Early woodland		ca. 1675 - 1720		ca. 1900 - 1930	
MIddle archaic		Mid. woodland		ca. 1720 - 1780		Post 1930	
Late archaic		Late woodland		ca. 1780 - 1820			

Unknown historic context ☐

Unknown prehistoric context ☐ Unknown context ☐

Ethnic Associations (historic only)

Native American		Asian American	
African American		Unknown	Y
Anglo-American		Other	
Hispanic			

Y=Confirmed, P=Possible

Site Function Contextual Data:

Prehistoric

Multi-component	☐	Misc. ceremonial	☐
Village	☐	Rock art	☐
Hamlet	☐	Shell midden	☐
Base camp	☐	STU/lithic scatter	☐
Rockshelter/cave	☐	Quarry/extraction	☐
Earthen mound	☐	Fish weir	☐
Cairn	☐	Production area	☐
Burial area	☐	Unknown	☐

Other context ☐

Historic

Urban/Rural? Rural

Domestic	☐	Furnace/forge	☐	**Military**	☐	Post-in-ground	☐
Homestead	☐	Other	☐	Battlefield	☐	Frame-built	☐
Farmstead	☐	**Transportation**	☑	Fortification	☐	Masonry	☐
Mansion	☐	Canal-related	☐	Encampment	☐	Other structure	☐
Plantation	☐	Road/railroad	☐	**Townsite**	☐	**Slave related**	☐
Row/townhome	☐	Wharf/landing	☐	**Religious**	☐	**Non-domestic agri**	☐
Cellar	☐	Maritime-related	☑	Church/mtg house	☐	**Recreational**	☐
Privy	☐	Bridge	☐	Ch support bldg	☐	**Midden/dump**	☐
Industrial	☐	Ford	☐	**Burial area**	☐	**Artifact scatter**	☐
Mining-related	☐	**Educational**	☐	Cemetery	☐	**Spring or well**	☐
Quarry-related	☐	**Commercial**	☐	Sepulchre	☐	**Unknown**	☐
Mill	☐	Trading post	☐	Isolated burial	☐	**Other context**	☑
Black/metalsmith	☐	Store	☐	**Bldg or foundation**	☐	shipwreck,side-wheel steamboat	
		Tavern/inn	☐	Possible Structure	☐		

Interpretive Sampling Data:

Prehistoric context samples			
Soil samples taken		Flotation samples taken		Other samples taken	

Historic context samples			
Soil samples taken	N	Flotation samples taken	N	Other samples taken	

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Other name(s) Steamship Columbus

Prehistoric ☐ Historic ☑ Unknown ☐

Brief Description: shipwreck, mid-19th century side-wheel steamer

Diagnostic Artifact Data:

Projectile Point Types

Clovis		Koens-Crispin	
Hardaway-Dalton		Perkiomen	
Palmer		Susquehana	
Kirk (notch)		Vernon	
Kirk (stem)		Piscataway	
Le Croy		Calvert	
Morrow Mntn		Selby Bay	
Guilford		Jacks Rf (notch)	
Brewerton		Jacks Rf (pent)	
Otter Creek		Madison/Potomac	
		Levanna	

All quantities exact or estimated minimal counts

Prehistoric Sherd Types

Marcey Creek		Popes Creek		Shepard		Keyser	
Dames Qtr		Coulbourn		Townsend		Yeocomico	
Selden Island		Watson		Minguannan		Monongahela	
Accokeek		Mockley		Sullivan Cove		Susquehannock	
Wolfe Neck		Clemson Island		Shenks Ferry			
Vinette		Page		Moyaone			
				Potomac Cr			

Historic Sherd Types

Earthenware		Ironstone		Staffordshire	
Astbury		Jackfield		Tin Glazed	
Borderware		Mn Mottled		Whiteware	
Buckley		North Devon		**Porcelain**	
Creamware		Pearlware			

Stoneware

English Brown	
Eng Dry-bodie	
Nottingham	
Rhenish	
Wt Salt-glazed	

Other Artifact & Feature Types:

Prehistoric Artifacts

Flaked stone		Other fired clay	
Ground stone		Human remain(s)	☐
Stone bowls		Modified faunal	
Fire-cracked rock		Unmod faunal	
Other lithics (all)		Oyster shell	☐
Ceramics (all)		Floral material	☐
Rimsherds		Uncommon Obj.	
		Other ☐	

Prehistoric Features

Mound(s)		Storage/trash pit	☐
Midden	☐	Burial(s)	☐
Shell midden	☐	Ossuary	☐
Postholes/molds	☐	Unknown	☐
House pattern(s)	☐	Other	☐
Palisade(s)	☐		
Hearth(s)	☐		
Lithic reduc area	☐		

Lithic Material

Fer quartzite	☐	Sil sandstone	☐		
Jasper	☐	Chalcedony	☐	European flint	☐
Chert	☐	Ironstone	☐	Basalt	☐
Rhyolite	☐	Argilite	☐	Unknown	☐
Quartz	☐	Steatite	☐	Other	☐
Quartzite	☐	Sandstone	☐		

☐ **Dated features present at site**

Historic Artifacts

		Tobacco related	
Pottery (all)	9	Activity item(s)	462
Glass (all)	27	Human remain(s)	☐
Architectural	205	Faunal material	☐
Furniture		Misc. kitchen	1
Arms		Floral material	☐
Clothing		Misc.	73
Personal items	42	Other ☑	hull remains,extensive machinery

Historic Features

Const feature	☐	Privy/outhouse	☐	Depression/mound	☐
Foundation	☐	Well/cistern	☐	Burial(s)	☐
Cellar hole/cellar	☐	Trash pit/dump	☐	Railroad bed	☐
Hearth/chimney	☐	Sheet midden	☐	Earthworks	☐
Postholes/molds	☐	Planting feature	☐	Mill raceway	☐
Paling ditch/fence	☐	Road/walkway	☐	Wheel pit	☐

Unknown	☐
Other	☑
hull,machinery	

All quantities exact or estimated minimal counts

Radiocarbon Data:

Sample 1: +/- years BP Reliability **Sample 2:** +/- years BP Reliability **Sample 3:** +/- years BP Reliability

Sample 4: +/- years BP Reliability **Sample 5:** +/- years BP Reliability **Sample 6:** +/- years BP Reliability

Sample 7: +/- years BP Reliability **Sample 8:** +/- years BP Reliability **Sample 9:** +/- years BP Reliability

☐ **Additional radiocarbon results available**

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MARYLAND HISTORICAL TRUST

Site Number: 18ST625 **Site Name:** AWOIS #7241

Other name(s) Steamship Columbus

Prehistoric ☐ Historic ☑ Unknown ☐

Brief Description: shipwreck, mid-19th century side-wheel steamer

External Samples/Data:

Collection curated at Jefferson Patterson Park and Museum (engine)

☐ Additional raw data may be available online

Summary Description:

Site 18ST625 (AWOIS #7241) represents a 19th century side-wheel steamer boat, specifically the steamboat Columbus. At the time of the Phase II investigation, the site was in approximately 17 m of water in the Chesapeake Bay, near the mouth of the Potomac River. It was located southeast of Point Lookout, MD. Bottom sediments consisted of silty sands with scattered mussel and clam shells. Exposed portions of the wreck attracted various forms of marine growth. Under marine conditions, the wreck undergoes regular episodes of erosion and reburial. It should be noted that the site was designated with a St. Mary's County trinomial number, however, longitude and latitude place the site within the maritime boundaries of Somerset County. The reason for this discrepancy is unknown.

The site had been previously identified in the National Oceanic and Atmospheric Administration (NOAA) Automated Wreck and Obstruction Information System (AWOIS) files. The U.S. Army Corps of Engineers was in the planning stage for removal of the vessel remains, as a potential hazard to navigation. Removal was part of a larger project (the Baltimore Harbor and Channels 50' Project) to deepen the Baltimore Harbor and channels in the Chesapeake Bay to allow safe passage of vessels having a 15.24 m (50') draft. In order to provide a margin of safety during low tides, a margin of 18.28 m (60') was required. The then current U.S. Army Corps of Engineers plans for the wreckage involved clearing the vessel to the level of the existing sand bottom only, accomplished by lifting components of the vessel that extended vertically into the water column.

During the late winter and spring of 1991, archival research and field work were conducted at the site. The objective of the Phase II archeological evaluation was to determine the significance of the shipwreck, applying the National Register of Historic Places criteria for evaluation. Ancillary objectives were to determine the predicted effects of the clearance project on the wreck, and to make management recommendations concerning the cultural resource. Background and archival research involved investigating the history of the area surrounding the wreck and developing historical and technical contexts for investigation of the wreck. This was used to develop a list of possible identities for the wreck. Archival research was followed by remote sensing and underwater field investigations. Proton magnetometer survey consisted of towing the magnetometer along transects spaced at 15.24 m intervals, using established Coast Guard navigation buoy and a temporary wreck marker as reference points. The survey area measured approximately 300 m x 300 m. The marine sensor was towed approximately 22.86 m (75') behind the boat at a depth of approximately 6.096 m (20') above the bottom.

The majority of the underwater investigation was conducted using a surface-supplied air system (SSA) with surface-to-diver communications. Initial investigations entailed identifying the general nature of the site, including the wreck type and the level of integrity. Then the divers recorded site components, construction techniques, and construction materials. Longitudinal datum lines were placed to facilitate measurements and diver orientation. One-m² test units were excavated using a 4" airlift until artifactual material was observed. The objects were recorded and excavations were stopped after buried material was revealed. While the majority of observed artifacts were left in situ, several items were brought to the surface.

NOAA divers identified a copper-covered wood hull in 1987 along with a jumbled mass of large-diameter pipe. The 1991 Phase II survey confirmed that the hull was copper sheathed, but identified the jumbled mass as the cylinders, steam chests, and piping of a side-wheel steamboat. Observed engine remains consisted of a single large diameter (50" or 1.3 m) main cylinder. Two stem chest tubes projected out of the cylinder and were fastened in place by iron supports. The apparent remains of the engine's air pump, with its piston still in place, were recorded several feet east of the main cylinder. Archeologists also identified the starboard-side paddlewheel, the remains of which consisted of a 30.48 cm (1') diameter shaft lying at an angle inboard of the hull. Remnants of three wheels indicated that the original width of the paddles was 3.048 m (10'). Only the center wheel retained vestiges of its iron arms.

Only a portion of the bow remained, the interior of which was filled with sediment and numerous iron concretions. No anchors or anchor chains were observed in the bow. A half-buried wooden barrel was noted off the port side of the bow stem. The futtocks comprised a frame with spacing between frames of 60.96 cm (24"). Ceiling planking was in good condition and the probable remains of main deck planking were observed inside the hull amidship. At least 1 sister keelson was located beneath the paddlewheel shaft near the engine.

The length of the wreckage was determined to be between 60.96 m and 67.05 m (200' and 220'); however, the exposed section of the wreck's hull was less than 48.76 m (160'). It could not be determined if the stern was intact. The vessel's breadth was measured at 9.144 m (30'), just below the waterline level and aft of the paddlewheel. A breadth measurement taken across the guards while still afloat was projected to have been up to 7.62 m (25') greater. Numerous artifacts were observed on the interior of the hull including copper alloy pipes and fasteners, planking spikes and drift pins or bolts and buried iron artifacts. Test units excavated outside the hull amidship revealed unidentified timbers buried 0.457 m (1.5') below the surface of sand and silt sediments. A rectangular perforated copper plate measuring 27 cm by 41 cm was recovered from outside the wreck on the starboard side. It may have been the screen for a salt water intake valve. Test Unit 2 was excavated just inboard of the hull side, and produced unidentified 20.32 cm (8") long, flat iron bars and angle iron that may have represented structural elements of the vessel. Excavations were stopped when the artifacts were encountered.

The only items retained, as recorded in Appendix II, Artifact Inventory in the original report were 1 copper drift pin, 2 copper spikes and 1 copper deck plate (possibly the perforated plate), which were recorded as architectural items in the table above.

The proton magnetometer survey conducted in the vicinity of the site produced 8 magnetic anomalies. Target MD-G correlated with the position of the main wreck and Targets MD-E and H were thought to possibly represent nearby outlying wreckage. Target MD-F correlated with a nearby navigation buoy. The remaining Targets MD-A to D were not field checked by divers.

At the time of the 1991 study, the vessel was believed to be one of five side-wheel steamers known to have sunk in the Point Lookout/Smith Point area in the mid-19th century. These included the Knickerbocker, the Express, the North Carolina, the Columbus, and the Louisiana. It was suggested that the wreckage may have been either that of the Columbus, which burned and was recorded as having sunk north of Smith Point in the same general location of the wreckage, or the North Carolina, which also burned but went down closer to Smith Point. No evidence of burning was observed at the wreckage site in 1991.

The amount of artifacts on board the vessel indicated that it had not been known to amateur wreck divers. The materials were in a sealed context dating from the day the vessel sank. Recovery and analysis of the assemblage would allow a glimpse of one heretofore unrecorded aspect of daily life in the Chesapeake Bay region. The hull and engine remains have the distinctive characteristics of the type and construction of engineering prevalent in sidewheel steamboat design during the mid-19th century. If the wreck turned out to be the Columbus, the engine is a rare example of the work produced by the regionally important

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Other name(s) Steamship Columbus

Prehistoric ☐ Historic ☑ Unknown ☐

Brief Description: shipwreck, mid-19th century side-wheel steamer

Charles Reeder marine steam engine works. Because of the site's significance, avoidance or mitigation was recommended.

The Phase II investigations in September and October of 1992 were undertaken with the purpose of mitigating impacts to the site from the proposed Baltimore Harbor and Channels 50' Project. Goals included placement of significant engine remains in their relationship to the hull, mapping of the extent of hull remains, investigation amidships of the engine attachments, investigation in the stern to determine the means of rudder attachment, and excavation in the bow to define its construction. Following the recovery project, a Historic American Engineering Record (HAER) documentation of the Columbus' machinery was completed. A magnetometer survey was conducted using the same parameters as in the 1991 survey. Underwater field investigation included establishing a perimeter line consisting of long metal stakes placed every 6.1 m around the extant hull remains; stakes on the port side were numbered 101-110 from bow to stern and stakes on the starboard side were numbered 201-209. A rope travel line was placed between the stakes. These were later used as sub-baselines. A 53.18 m long baseline was established approximately 6.09 m outboard of the port side of the wreck. Long stakes were placed every 6.09 m and numbered 299-308 beginning in the stern.

The 1992 Phase II provided the necessary data required to identify the wreckage as the remains of the steamboat Columbus that burned and sank near Smith Point on the night of November 27, 1850. Although several other steamboats had been considered as candidates, various factors of dimensional discrepancies, engine size, and circumstances of loss reduced the list to the Columbus. In 1828, when the Columbus was built, her hull measured 42 m (138') in length with a beam of 9.1 m (30') and a depth of hold of 3.4 m (11'). During an extensive refit in 1836, her length was increased from its original size to 53 m (174'). The vessel was designed to carry both cargo and passengers. It was determined in 1992 that there was ample evidence on the site that fire was the cause of the wrecked vessel's demise. Charred wood, melted fasteners, fused glass, and rivulets of molten copper on the boiler plate fragments suggest an intense conflagration prior to sinking. At the time of the sinking, only about $70 worth of cargo and 1 passenger along with a modest crew were reportedly onboard the vessel.

Artifacts were recovered in nylon mesh bags during excavation using a 10.2 cm (4") diameter water induction dredge unit. Artifact provenience was kept by recording artifact location relative to their frame spaces or to their association with other structural components. Wood samples were collected from the keelson, a frame, hull-planking, the stempost, the engine platform, ceiling planking, and the rudder. Analysis of the wood indicated that oak and pine were used in construction of the vessel.

Archeological and archival evidence indicated that the vessel was flat-bottomed with an extremely sharp bow and stern. It was postulated that the stern was given its present shape during the 1836 refit. Very little data was gathered about the keel. The overall length of the keel was estimated to be 51.8 m (170'). The framing on the Columbus varied over its length depending upon its location within the hull. At midships, the floor timbers appeared to have a sided dimension of 16.5 cm. Due to the presence of ceiling planking, it was impossible to gain any understanding of the relationship and arrangement of floors and futtocks. The last surviving futtocks averaged 15.24 cm sided and 17.78 cm molded. Wedge-shaped cant frames were extant in the bow and stern. Several keelsons were identified including a central keelson, bilge keelsons, and keelsons between the central and bilge keelsons. The keelsons were fastened in places with copper drift pins.

A complete understanding of the construction of the bow could not be reached without dismantling the structure because of restricted spaces. A timber was recorded in the bow, just forward of the keelson, that appeared to be one of several stem deadwoods. This timber would be under the stemson that scarfed into the end of the keelson. A combined stempost/gripe constructed of Southern Hard pine was located forward of the deadwood. It measured approximately 15.2 x 8.9 x 81.3 cm. Three cant frames survived along the starboard side of the bow.

The stern was more accessible than the bow. The stern cant frames were in sets of two. One deadwood was extant in the stern which was fastened to the keel with five 2.5 cm diameter copper drift pins. The remains of a probable stern knee were observed and noted as being fayed into both the deadwood and the remains of the sternpost. Approximately the forward one half of the lower sternpost remained in place although no information could be acquired concerning the manner in which the sternpost was attached to the keel.

Limited data was recovered concerning the hull planking because it was covered in copper sheathing or otherwise obscured. The planks tended to average about 7.6 cm in thickness with various widths depending upon their position within the hull. The hull planks were cut from white oak.

Large sections of the vessel's ceiling planks remained intact. Unlike most ceiling planking, it was observed that these ran athwartships rather than fore and aft. The planks were about 2.5 cm thick and varied in width from 13.3 to 25.4 cm. Each plank was attached to the bilge keelson with 2 square iron spikes. Badly degraded remains of fore and aft ceiling planking were observed on the port side below the air pump. It was suggested that those planks may represent the true ceiling planks and the athwartships planks may have been added to provide a dry, level surface for the engineers. The athwartships ceiling planks were cut from Eastern White pine.

Some remains of the engine platform were identified. The air pump was the only component still firmly affixed in its original position within the hull. The pump rested upon a thick iron plate that attached to a foundation of a row of large timbers. These timbers were attached to the floors with 2.5 cm diameter copper drift pins. The air pump was supported only by the 2 central rows and the engine was supported by 4 rows. A third stack of timbers may also have been associated with the engine platform.

The surviving piece of the rudder measured approximately 2.13 m high by 1.82 m wide. The remains consisted of 4 timbers fastened together with at least 1 remaining copper drift pin. The lowermost lintel was still in place near the base of the rudder. The rudder was attached to the sternpost by at least 2 sets of cupreous gudgeons and pintles. The actual shape and form of the rudder could not be deduced from the surviving remains.

The Columbus was powered by 2 side paddle wheels driven by a 100-horse power crosshead steam engine. The surviving starboard paddle wheel was raised and transported to New Orleans for conservation. The wheel consisted of the iron crank (1.44 m long), the shaft (0.3048 m in diameter), and 3 hubs (1.83 m, 1.37 m, and 1.22 m in diameter), and had an overall length of 6.82 m. Extrapolating from similar examples, the Columbus's paddle wheels probably had a diameter of 6.0 to 6.7 m. Other parts related to the power train that were identified during the 1992 investigations were the engine assembly, the air pump, the air pump lever, the injection cock and intake screen, and what were probably pieces of the boiler.

A total of 796 artifacts were recovered during the Phase II investigation. There were 462 activity items including 459 small garment hook and eye pieces (possibly a cargo item), 2 tool handles, and 1 piece of modern chicken wire (possibly from a crab pot). There were 201 architectural items/boat parts including 14 cut nails, 1 possible fulcrum, 1 U-shaped metal fitting, 1 metal rod, 1 water intake valve, 2 gudgeon (1 for rudder), 1 saucer pintle, 1 saucer, 2 saucer

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Other name(s) Steamship Columbus Historic ☑

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mounting spikes, 5 stanchion finial fragments, 2 railing stanchion base plates, 5 railing rod fragments, 1 cupreous metal plate, 1 unidentified machine part, 10 spike pieces (3 with adhering wood), 10 drift bolts/pins, 2 “fish plate” fittings, 117 copper sheathing nails and nail fragments, 4 fragments of copper sheathing, 2 fragments of block to insulate stovepipe, 6 fragments of copper boiler plating, 1 decorative mounting bracket, 1 copper wire fragment, 1 pipe bracket, 1 rod, 1 “key” locking clamp, 1 flange fragment, 2 pillow bearings, 1 lead gasket, 1 bolt fragment, 1 iron pipe fragment, and 1 paddle wheel. There were 18 kitchen-related items including 8 bottle glass fragments, 2 whiteware ointment jar sherds (Amandine Hand Cream), 4 fragments of a whiteware pitcher, 2 unidentified ceramic sherds, 1 gray stoneware sherd, 1 animal (possibly fish) bone fragment. There were 73 miscellaneous items including 1 brass rivet (possibly off a clothing item), 14 unidentified metal objects, 19 unidentified melted glass fragments, 9 unidentified leather fragments, 2 coal fragments, 11 fragments of slate, 6 unidentified stones from dredging, 3 pieces of unidentified wood objects, and 8 unidentified objects. There were 42 personal items including 2 jewelry fragments, and 40 leather fragments from a book cover or binding or from a piece of luggage. The ships engine, including the condenser diffuser plate segments, air pump stays, cylinder and piston and shaft, the lower cylinder head, cast iron leg beam, upper and lower valve chest housing, the engine piston with rings, portions of the bed plate, and the engine cylinder and condenser cylinder, was raised during the 1992 data recovery project. It is currently housed at the Jefferson Patterson Park and Museum in Maryland.

Site 18ST625 (AWOIS #7241) represents a 19th century side-wheel steamer boat, specifically the steamboat Columbus. The Columbus is representative of the earliest period of construction of specialized steamboat hulls. Its hull was constructed during an important transitional period bridging traditional sailing craft construction to the building of specialized steamship hulls. Its crosshead engine is among the first engines to propel water craft in the United States and is one of the earliest extant ship’s engines in the country. It was also one of the first vessels to provide freight hauling service in the Chesapeake Bay on a regular schedule. While the data recovery projects succeeded in collecting fundamental information about the function and composition of the site, more research potential exists at the site. The U.S. Army Corps of Engineers plans for the wreckage involved clearing the vessel to the level of the existing sand bottom only, accomplished by lifting components of the vessel that extended vertically into the water column. Remains of the vessel’s hull, including the engine compartment, should still be extant on the Bay floor.

External Reference Codes (Library ID Numbers):

97000225, 97001754, 97001844